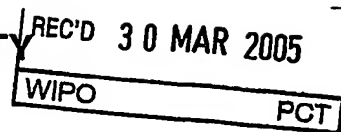


PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)



Applicant's or agent's file reference PCT143	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/EP 03/09973	International filing date (day/month/year) 09.09.2003	Priority date (day/month/year) 13.01.2003
International Patent Classification (IPC) or both national classification and IPC B21L11/00		
Applicant SILMAR S.p.A. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 23.03.2004	Date of completion of this report 29.03.2005
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Augé, M Telephone No. +49 89 2399-2371 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP 03/09973

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-4 as originally filed

Claims, Numbers

1-6 received on 12.10.2004 with letter of 08.10.2004

Drawings, Sheets

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/EP 03/09973**

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1,3,6
Inventive step (IS)	Yes: Claims	
	No: Claims	1-6
Industrial applicability (IA)	Yes: Claims	1-6
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

V.1 Reference is made to the following documents:

- D1: EP-A-0 470 937 (BELLA GIUSEPPINA) 12 February 1992 (1992-02-12)
- D2: US-A-5 682 736 (CHIA CHEO ET AL) 4 November 1997 (1997-11-04)
- D3: EP-A-0 233 351 (GROTTO FERDINANDO) 26 August 1987 (1987-08-26)
- D4: US 2002/035828 A1 (CHIA CHEO K ET AL) 28 March 2002 (2002-03-28)

V.2 Independent claim 1

V.21 The document D1 discloses (the references in parentheses applying to this document):

A method for producing chains for articles of jewellery in the form of a rope (*see column 1, line 3*) comprising the steps of:

- preparing a plurality of open rings (1,3) by cutting by cutting or stamping from metal sheet (*see column 1, line 50*), each of said rings (1,3) having an opening defined between opposite portions of limbs of the ring (*see figure 2*),
- gripping and moving the rings (1,3) so as to prepare a sequence of respective pairs of adjacent rings (1,3) with respective openings facing each other (*see column 2, lines 40 to 42*),
- joining together the adjacent rings (1,3) of each pair to obtain a closed annular form (*see column 2, lines 42 to 43*), the rings of adjoining pairs having first been inserted, so as to obtain a structure with linked rings (*see column 1, lines 47 to 48*),

wherein the adjacent rings (1,3) of each pair are joined to each other at points of contact (5) between the corresponding limbs located near the respective openings (*see column 2 lines 46 to 48*), the corresponding limbs being placed back to back, one resting on the other alternately (*see column 2, lines 41 to 48; see also figures 1 and 2*).

The subject-matter of claim 1 is therefore not new (Article 33(2) PCT).

V.22 Remarks

- The expression in D1, column 2, lines 46 to 48 "soldered at 5 along the parallel and adjoining sides of the links themselves", cannot be reduced to meaning "soldered along the entire parallel and adjoining sides". The expression could also be interpreted as "soldering at a given point along the parallel and adjoining sides".
- Moreover, if this passage is interpreted to mean that the links of D1 are "soldered along the entire parallel and adjoining sides", this would not exclude that they are "joined (...) at points of contact between the corresponding limbs located near the respective openings", the points of contact forming continuous lines in D1.
- Finally soldering at a single point cannot be considered as inventive over soldering along a side, especially when considering that soldering along a side might be the result of capillarity on a point of solder.

V.3 Independent claim 6

A chain for articles of jewellery comprising rings linked together with each other produced according to the previous method is known from D1 (*see figures*).

The subject-matter of claim 6 is therefore not new (Article 33(2) PCT).

V.4 Dependent claims 2 to 5 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step, the reasons being as follows:

- Claim 2: see D2 ("weld spots 15"; fig. 1) and D3 ("soudage par points"; abstract).
- Claim 3: see D1 (figure 1) and D4 (figures).
- Claim 5: see D4 (§187 and §226).
- Claim 4: not inventive over the teaching of D4 (see in D4, §187 and §226).

V.5 Remarks

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the document D1 is not mentioned in the description, nor is this document identified therein.

CLAIMS

1. A method for producing chains for articles of jewellery in the form of a rope, comprising the steps of:
 - preparing a plurality of open rings (1) by cutting or stamping from metal sheet, each of said ring (1) having an opening (4) defined between opposite portions of limbs (5, 6) of the ring,
 - gripping and moving the rings (1) so as to prepare a sequence of respective pairs of adjacent rings (1) with respective openings (4) facing each other,
 - joining together the adjacent rings (1) of each pair to obtain a closed annular form, the rings (1) of adjoining pairs having first been inserted, so as to obtain a structure with linked rings,characterised in that the adjacent rings (1) of each pair are joined to each other at points of contact between the corresponding limbs (5, 6), located near the respective openings (4), the corresponding limbs (5, 6) being placed back to back, one resting on the other alternately.
2. A method according to claim 1 in which said limbs (5, 6) are joined to each other by spot soldering.
3. A method according to claim 1 or 2, in which the rings (1) are cut or stamped from sheet metal with a thickness such as to give the ring the form of a flattened annulus not completely closed, defined between opposite annular surfaces (2, 3).
4. A method according to one of the preceding claims, comprising the further step of diamond point surface engraving of the opposite surfaces (2, 3) of each ring.
5. A method according to one of claims 1 to 3, comprising the step of surface stamping of decorative patterns on the opposite surfaces of each ring (1).
6. A chain for articles of jewellery comprising rings (1) linked together with each other produced according to the method in one or more of claims 1 to 5.